By chemical oxidation

Detrick pollution to be neutralized

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Conditions appear to be right for a chemical oxidation process that would remove groundwater contamination beneath Fort Detrick after a waste removal project is completed.

Lt. Col. Jeff Springer, Fort Detrick's chief of safety, environment and integrated planning, said Wednesday a hydrogen peroxide-like chemical will be pumped into the ground after the waste cleanup to neutralize cancer-causing solvents buried there in the 1950s and 1960s.

He estimated the cost of the process to be from $500,000 to $1 million, but the Army should have a better understanding of the related costs, including how much of the chemical is needed, by 2003 when it's expected to be used.

Tests with the chemical – known as Fenton's reagent, an iron-catalyzed hydrogen peroxide – performed last winter revealed the process should be right for Detrick's underground environment.

After complete removal of the source of the groundwater contamination, believed to be buried waste in Area B-11 off Kemp Lane and Shookstown Road, the chemical would be injected into the ground beneath to create a reaction. The reaction would change the water's trichloroethene (TCE) into small amounts of heat and saltwater; which would dissipate from the groundwater supply over time, Col. Springer said.

A similar soil treatment process at Letterkenny Army Depot near Chambersburg, Pa., served as a model for Detrick's tests last winter.

Pumping the chemical into the groundwater system following the waste removal could also eliminate further groundwater contamination in areas around the post.

Army tests have shown that more than 90 percent of the suspected carcinogen TCE can be neutralized in the oxidation process, Col. Springer said.

The suspected carcinogenic chemicals, most commonly used in dry cleaning and as degreasing agents, were at one point buried at Detrick.

The base began cleaning the former landfills of Area B-11 in March. The site has shown to be the most likely source of TCE and PCE (tetrachloroethene) chemicals showing up in the post's groundwater monitoring wells.

In May the Army announced the excavation would be at least a year off schedule after a miscalculation of the landfills' size and a small explosion in late April.

Excavation that was set to be finished sometime this month will take much longer than the Army anticipated and will cost at least $5.5 million more than previously thought, Col. Springer said at the time.

"We're finding a much higher volume of waste buried deeper than we thought," Col. Springer said. "But we still intend to do all of the basic elements of design we informed the public about last year" at a June 2001 meeting at Waverley Elementary School.

Weekly cleanup updates are available to the public online at www.armymedicine.army.mil/detrick. Web surfers should look under the Web page's environmental category, then under "Fort Detrick Area B Clean-up" for the weekly summaries.

Frederick News-Post, July 12, 2001